

Prof. MEHMET KADRİ AYDINOL

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: A-5013-2010

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Education Information

Doctorate, Middle East Technical University, Graduate School of Natural and Applied Sciences, Metalurji Ve Malzeme Mühendisliği (Yıl) (Tezli), Turkey 1991 - 1994

Postgraduate, Middle East Technical University, Faculty of Engineering, Department of Metallurgical and Materials Engineering, Turkey 1989 - 1991

Undergraduate, Middle East Technical University, Faculty of Engineering, Department of Metallurgical and Materials Engineering, Turkey 1984 - 1989

Foreign Languages

English, C1 Advanced

Research Areas

Corrosion and Corrosion Protection, Physical Metallurgy, Material Characterization, Nanomaterials

Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Engineering, Department of Metallurgical and Materials Engineering, 2007 - Continues

Associate Professor, Middle East Technical University, Faculty of Engineering, Department of Metallurgical and Materials Engineering, 2001 - 2007

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Metallurgical and Materials Engineering, 1998 - 2001

Academic and Administrative Experience

Middle East Technical University, Faculty of Engineering, Department of Metallurgical and Materials Engineering, 2003 - 2012

Courses

Energy Storage Devices, Undergraduate, 2022 - 2023

Advising Theses

- AYDINOL M. K., Development and characterization of sulfide based active materials for electrochemical applications, Doctorate, C.SAVAŞ(Student), 2022
- AYDINOL M. K., Optimization of nickel, cobalt and lithium recovery processes from spent Li-ion batteries, Postgraduate, F.TEKMANLI(Student), 2022
- AYDINOL M. K., Development of borides/borates for energy storage devices, Postgraduate, D.BAHTİYAR(Student), 2022
- AYDINOL M. K., Ni-rich $\text{LiN}_{x}\text{Mn}_{y}\text{Co}_{z}\text{Mn}_{0.2}$ ($X>0.6$) cathode material development for Li-ion batteries, Postgraduate, M.ALP(Student), 2022
- AYDINOL M. K., Development of cathode materials for li-ion batteries by sputter deposition, Postgraduate, E.ERKİN(Student), 2022
- AYDINOL M. K., Development and characterization of tin based anode materials for Li-ion batteries, Postgraduate, E.YILMAZ(Student), 2018
- AYDINOL M. K., Development and characterization of new layered cathode materials for lithium ion batteries, Doctorate, B.PİŞKİN(Student), 2018
- AYDINOL M. K., Ultrasonic sound assisted processing and characterization of $\text{Li}(\text{Ni}-\text{Co}-\text{Al})$ oxide as cathode active material for Li-Ion Batteries, Postgraduate, C.Savaş(Student), 2017
- AYDINOL M. K., Ultrasonic sound assisted processing and characterization of $\text{Li}-(\text{Ni}-\text{Co}-\text{Al})$ oxide as cathode active material for Li-ion batteries, Postgraduate, C.SAVAŞ(Student), 2017
- AYDINOL M. K., Investigation of structural and electrochemical properties of biomass based activated carbon materials for energy storage applications, Postgraduate, K.ÖZGÜN(Student), 2017
- AYDINOL M. K., PARLAK M., Production and characterization of carbon-silicon nanocomposite anode materials for secondary lithium batteries, Doctorate, B.MİSER(Student), 2017
- AYDINOL M. K., Development and characterization of tungstates and molybdates for li-ion batteries, Postgraduate, B.KAYGUSUZ(Student), 2016
- EVİS Z., AYDINOL M. K., Development and characterization of high power density cathode materials for lithium-ion batteries, Doctorate, Ş.DOĞU(Student), 2015
- AYDINOL M. K., Hydrothermal synthesis and characterization of LiMnPO_4 for secondary lithium batteries /, Postgraduate, E.Camci(Student), 2014
- AYDINOL M. K., Hydrothermal synthesis and characterization of LiMnPO_4 for secondary lithium batteries, Postgraduate, E.CAMCI(Student), 2014
- AYDINOL M. K., Morphological evolution of strained isotropic thin solid film on rigid substrate /, Postgraduate, S.HADDADIAN(Student), 2014
- AYDINOL M. K., NALBANT ESENTÜRK E., Production and characterization of nano silver oxide for silver zinc batteries, Postgraduate, Ö.ÖYKÜM(Student), 2013
- AYDINOL M. K., Development and characterization of high energy cathode materials for lithium-ion batteries, Doctorate, A.BÜYÜKBURÇ(Student), 2013
- AYDINOL M. K., Production and characterization of $\text{CaNi}_{5-x}\text{M}_x$ compounds for metal hydride batteries, Postgraduate, O.Muğan(Student), 2012
- AYDINOL M. K., Production and characterization of CaNi compounds for metal hydride batteries, Postgraduate, B.ÖKSÜZ(Student), 2012
- AYDINOL M. K., Ab ? initio development of Ca-Ni based alloys for metal hydride batteries, Postgraduate, O.MUĞAN(Student), 2012
- AYDINOL M. K., ERKOÇ Ş., Investigation of the structural properties of silicene nanoribbons by molecular dynamics simulations, Postgraduate, A.İNCE(Student), 2012
- AYDINOL M. K., Investigation of electromigration and stress induced surface dynamics on the interconnect by computer

simulation, Doctorate, A.ÇELİK(Student), 2011
AYDINOL M. K., Computer simulation of grain boundary grooving by anisotropic surface drift diffusion due to capillary, electromigration and elastostatic forces, Doctorate, ÖAKYILDIZ(Student), 2010
AYDINOL M. K., Development of lead alloys for valve-regulated lead-acid (VRLA) batteries, Postgraduate, Ş.HALICI(Student), 2010
AYDINOL M. K., An ab initio surface study of FeTi for hydrogen storage applications, Postgraduate, A.Izanlou(Student), 2009
AYDINOL M. K., An ab initio surface design of FeTi for hydrogen storage applications, Postgraduate, A.IZANLOU(Student), 2009
AYDINOL M. K., Ab initio design of novel magnesium alloys for hydrogen storage, Postgraduate, D.KEÇİK(Student), 2008
AYDINOL M. K., First principles investigation of hydrogen storage in intermetallic systems, Postgraduate, A.KINACI(Student), 2007
AYDINOL M. K., Microstructural and electrochemical characterization of Ti-6Al-4V eli alloy, Postgraduate, M.TOPÇUOĞLU(Student), 2006
AYDINOL M. K., Non-equilibrium molecular dynamics of electromigration in aluminum and its alloys, Postgraduate, F.GÜRCAĞ(Student), 2006
AYDINOL M. K., Microstructural and elecrochemical characterization of Ti-6A1-4V ELI alloy, Postgraduate, M.Topçuoğlu(Student), 2006
AYDINOL M. K., Determination of susceptibility to intergranular corrosion in AISI 304L and 316L type stainless steels by electrochemical reactivation method, Postgraduate, G.HAMİDE(Student), 2004
AYDINOL M. K., Molecular dynamics studies of diffusion behaviour in aluminum-copper metals and alloys, Doctorate, A.Davutoğlu(Student), 2003
AYDINOL M. K., AKDENİZ M. V., Prediction of glass forming ability in TM-based binary alloys, Postgraduate, H.BURCU(Student), 2001
AYDINOL M. K., AKDENİZ M. V., Prediction of glass forming ability in Zr based binary alloys, Postgraduate, B.DİLŞİZOĞLU(Student), 2001

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Size and morphology controlled polyol synthesis of LiFePO₄ nanoparticles with addition of organic acid combinations**
Coşkun E., Kurşun E., YILDIZ B., Aşkar Y., Bahtiyar D., AYDINOL M. K., MAVİŞ B., Çınar-Aygün S. Ceramics International, vol.50, no.9, pp.15915-15930, 2024 (SCI-Expanded)
- II. **Ionic liquids-assisted electrolytes in aqueous zinc ion batteries**
Ahmad M. I., Bahtiyar D., Khan H. W., Shah M. U. H., Kiran L., AYDINOL M. K., Yusuf M., Kamyab H., Rezania S. Journal of Energy Storage, vol.72, 2023 (SCI-Expanded)
- III. **Mesoporous Cr₂O₃/MWCNTs/PANI nanocomposite as a high performance anode material for rechargeable lithium ion batteries**
Kiran L., AYDINOL M. K., Shah S. S., Anwar A., Abbas S. M., Bahtiyar D., Siddiq M., Rehman A., Ouladsmane M., Shahzad M. I. Fuel, vol.352, 2023 (SCI-Expanded)
- IV. **Flowers Like α-MoO₃/CNTs/PANI Nanocomposites as Anode Materials for High-Performance Lithium Storage**
Kiran L., AYDINOL M. K., Ahmad A., Shah S. S., Bahtiyar D., Shahzad M. I., Eldin S. M., Bahajjaj A. A. A. Molecules, vol.28, no.8, 2023 (SCI-Expanded)
- V. **Cr-added nickel sulfides as electrocatalysts for oxygen evolution reaction**
Uygur C. S., AYDINOL M. K. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, vol.290, 2023 (SCI-Expanded)
- VI. **Development of activated carbon/bimetallic transition metal phosphide composite materials for**

- electrochemical capacitors and oxygen evolution reaction catalysis**
Köse K. Ö., Aydinol M. K.
INTERNATIONAL JOURNAL OF ENERGY RESEARCH, vol.46, no.15, pp.22078-22088, 2022 (SCI-Expanded)
- VII. **Synthesis of Graphene-MoS₂ composite based anode from oxides and their electrochemical behavior**
Sarwar S., Karamat S., Saleem Bhatti A., Kadri Aydinol M. K., ORAL A., Hassan M. U.
Chemical Physics Letters, vol.781, 2021 (SCI-Expanded)
- VIII. **Effect of calcium or yttrium doping on cation ordering and electrochemical performance of Li(Ni_{0.80-x}Co_{0.15}Al_{0.05}M_x)O₂ (M = Ca, Y) as a Li-ion battery cathode**
Uygur C. S., AYDINOL M. K.
MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS, vol.264, 2021
(SCI-Expanded)
- IX. **Experimental investigation on the electrocatalytic behavior of Ag-based oxides, Ag₂XO₄ (X= Cr, Mo, W), for the oxygen reduction reaction in alkaline media**
Hamat B. A., AYDINOL M. K.
JOURNAL OF SOLID STATE CHEMISTRY, vol.290, 2020 (SCI-Expanded)
- X. **Effects of surface pretreatments and coating period on hydroxyapatite coating of Ti6Al4V alloy**
HACIOĞLU T., EVİS Z., TEZCANER A., AYDINOL M. K.
JOURNAL OF THE AUSTRALIAN CERAMIC SOCIETY, vol.56, no.2, pp.545-557, 2020 (SCI-Expanded)
- XI. **Morphology effect on electrochemical properties of doped (W and Mo) 622NMC, 111NMC, and 226NMC cathode materials**
Pişkin B., Uygur C. S., AYDINOL M. K.
International Journal of Hydrogen Energy, vol.45, no.14, pp.7874-7880, 2020 (SCI-Expanded)
- XII. **Comparison of the short and long-term degradation behaviors of as-cast pure Mg, AZ91 and WE43 alloys**
Ocal E. B., Esen Z., Aydinol K., Dericioğlu A. F.
MATERIALS CHEMISTRY AND PHYSICS, vol.241, 2020 (SCI-Expanded)
- XIII. **Synthesis of Li x(Ni 0.80Co 0.15Al 0.05) O 2 cathodes with deficient and excess lithium using an ultrasonic sound-assisted co-precipitation method for Li-ion batteries**
Uygur C. S., Pişkin B., AYDINOL M. K.
Bulletin of Materials Science, vol.42, no.5, 2019 (SCI-Expanded)
- XIV. **Activation of Manganese Ions in Lithium-ion Battery Anode Materials via Nickel and Cobalt Doping**
Kunduraci M., Uygur C. S., AYDINOL M. K.
JOURNAL OF ELECTRONIC MATERIALS, vol.47, no.11, pp.6420-6427, 2018 (SCI-Expanded)
- XV. **Mo doping of layered Li (NixMnyCo_{1-x-y-z}Mz)O₂ cathode materials for lithium-ion batteries**
Pişkin B., Uygur C. S., AYDINOL M. K.
INTERNATIONAL JOURNAL OF ENERGY RESEARCH, vol.42, no.12, pp.3888-3898, 2018 (SCI-Expanded)
- XVI. **Chemical and structural optimization of ZnCl₂ activated carbons via high temperature CO₂ treatment for EDLC applications**
KÖSE K. Ö., Piskin B., AYDINOL M. K.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.43, no.40, pp.18607-18616, 2018 (SCI-Expanded)
- XVII. **Development and characterization of layered Li(NixMnyCo_{1-x-y})O₂ cathode materials for lithium ion batteries**
Piskin B., AYDINOL M. K.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.41, no.23, pp.9852-9859, 2016 (SCI-Expanded)
- XVIII. **Preface to the special issue on "1st International Symposium on Materials for Energy Storage and Conversion ((ESC)-E-m-IS 2015)"**
ÖZTÜRK T., Eroglu I., AYDINOL M. K.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.41, no.23, pp.9719-9722, 2016 (SCI-Expanded)
- XIX. **Effect of Cr and Mo doping on the electrochemical properties of freeze-dried LiCoO₂**
Buyukburc A., AYDINOL M. K.
INTERNATIONAL JOURNAL OF MATERIALS RESEARCH, vol.105, no.10, pp.983-991, 2014 (SCI-Expanded)

- XX. **Direct synthesis of Mg-Ni compounds from their oxides**
 Tan S., Aydinol K., ÖZTÜRK T., KARAKAYA İ.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.504, no.1, pp.134-140, 2010 (SCI-Expanded)
- XXI. **An ab initio study of dissociative adsorption of H-2 on FeTi surfaces**
 Izanlou A., AYDINOL M. K.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.35, no.4, pp.1681-1692, 2010 (SCI-Expanded)
- XXII. **Synthesis of FeTi from mixed oxide precursors**
 Tan S., Oers T., AYDINOL M. K., ÖZTÜRK T., KARAKAYA İ.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.475, pp.368-372, 2009 (SCI-Expanded)
- XXIII. **Density functional and dynamics study of the dissociative adsorption of hydrogen on Mg (0001) surface**
 Kecik D., AYDINOL M. K.
SURFACE SCIENCE, vol.603, no.2, pp.304-310, 2009 (SCI-Expanded)
- XXIV. **Atomistic simulation of self-diffusion in Al and Al alloys under electromigration conditions**
 Sen F. G., AYDINOL M. K.
JOURNAL OF APPLIED PHYSICS, vol.104, no.7, 2008 (SCI-Expanded)
- XXV. **A comparative ab initio study of the ferroelectric behaviour in KN03 and CaCO3**
 AYDINOL M. K., Mantese J. V., Alpay S. P.
JOURNAL OF PHYSICS-CONDENSED MATTER, vol.19, no.49, 2007 (SCI-Expanded)
- XXVI. **Ab initio investigation of FeTi-H system**
 Kinaci A., Aydinol M. K.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.32, no.13, pp.2466-2474, 2007 (SCI-Expanded)
- XXVII. **Determination of susceptibility to intergranular corrosion and electrochemical reactivation behaviour of AISI 316L type stainless steel**
 Aydogdu G. H., Aydinol M. K.
CORROSION SCIENCE, vol.48, no.11, pp.3565-3583, 2006 (SCI-Expanded)
- XXVIII. **Phase separation tendencies of aluminum-doped transition-metal oxides ($\text{LiAl}(1-x)\text{M}(x)\text{O}(2)$) in the alpha- $\text{NaFeO}(2)$ crystal structure**
 Buta S., Morgan D., VanderVen A., AYDINOL M. K., Ceder G.
JOURNAL OF THE ELECTROCHEMICAL SOCIETY, vol.146, no.12, pp.4335-4338, 1999 (SCI-Expanded)
- XXIX. **Lithium-intercalation oxides for rechargeable batteries**
 Ceder G., VanderVen A., AYDINOL M. K.
JOM-JOURNAL OF THE MINERALS METALS & MATERIALS SOCIETY, vol.50, no.9, pp.35-40, 1998 (SCI-Expanded)
- XXX. **First-principles investigation of phase stability in $\text{Li}_{x}\text{CoO}_2$**
 VanderVen A., AYDINOL M. K., Ceder G., Kresse G., Hafner J.
PHYSICAL REVIEW B, vol.58, no.6, pp.2975-2987, 1998 (SCI-Expanded)
- XXXI. **First-principles evidence for stage ordering in $\text{Li}(x)\text{CoO}(2)$**
 VanderVen A., AYDINOL M. K., Ceder G.
JOURNAL OF THE ELECTROCHEMICAL SOCIETY, vol.145, no.6, pp.2149-2155, 1998 (SCI-Expanded)
- XXXII. **The electrochemical stability of lithium metal oxides against metal reduction**
 Ceder G., AYDINOL M. K.
Solid State Ionics, vol.109, pp.151-157, 1998 (SCI-Expanded)
- XXXIII. **Identification of cathode materials for lithium batteries guided by first-principles calculations**
 Ceder G., Chiang Y., Sadoway D., AYDINOL M. K., Jang Y., Huang B.
NATURE, vol.392, no.6677, pp.694-696, 1998 (SCI-Expanded)
- XXXIV. **Thermodynamics of oxides with substitutional disorder A microscopic model and evaluation of important energy contributions**
 Ceder G., Kohan A., AYDINOL M. K., Tepesch P., VanderVen A.
Journal Of The American Ceramic Society, vol.81, pp.517-525, 1998 (SCI-Expanded)
- XXXV. **First-principles prediction of insertion potentials in Li-Mn oxides for secondary Li batteries**
 AYDINOL M. K., Ceder G.

- JOURNAL OF THE ELECTROCHEMICAL SOCIETY, vol.144, no.11, pp.3832-3835, 1997 (SCI-Expanded)
- XXXVI. Ab initio calculation of the intercalation voltage of lithium transitionmetal oxide electrodes for rechargeable batteries**
AYDINOL M. K., Kohan A., Ceder G.
Journal Of Power Sources, vol.68, pp.664-668, 1997 (SCI-Expanded)
- XXXVII. Ab initio study of lithium intercalation in metal oxides and metal dichalcogenides**
AYDINOL M. K., Kohan A., Ceder G., Cho K., Joannopoulos J.
PHYSICAL REVIEW B, vol.56, no.3, pp.1354-1365, 1997 (SCI-Expanded)
- XXXVIII. Application of first principles calculations to the design of rechargeable Li batteries**
Ceder G., AYDINOL M. K., Kohan A.
Computational Materials Science, vol.8, pp.161-169, 1997 (SCI-Expanded)
- XXXIX. Coherency strain effects on TEM images of composite precipitates in Al-Li-Zr alloys**
Aydinol M., Bor A.
JOURNAL OF MATERIALS SCIENCE, vol.31, no.18, pp.4883-4889, 1996 (SCI-Expanded)
- XL. TRANSMISSION ELECTRON-MICROSCOPY IMAGE-ANALYSIS OF COMPOSITE PRECIPITATES IN AL-LI-ZR ALLOYS**
AYDINOL M. K., Bor S.
JOURNAL OF MATERIALS SCIENCE LETTERS, vol.14, no.16, pp.1147-1149, 1995 (SCI-Expanded)
- XLI. SIMULATION OF ELECTRON-DIFFRACTION PATTERNS OF ALLOYS WITH ORIENTED PRECIPITATES**
AKBAY T., AYDINOL K., BOR A.
JOURNAL OF APPLIED CRYSTALLOGRAPHY, vol.27, pp.379-384, 1994 (SCI-Expanded)
- XLII. COARSENING OF DELTA' (AL₃Li) AND COMPOSITE PRECIPITATES IN AN AL-2.5-PERCENT Li-0.15-PERCENT ZR ALLOY**
AYDINOL M., BOR A.
JOURNAL OF MATERIALS SCIENCE, vol.29, no.1, pp.15-25, 1994 (SCI-Expanded)

Articles Published in Other Journals

- I. **Design of a high temperature erosion apparatus for testing of boiler tubes**
Ergün H., Aydinol K., ÖZTÜRK T., Doruk M.
Turkish Journal of Engineering and Environmental Sciences, vol.37, no.2, pp.178-185, 2013 (Scopus)
- II. **Non-equilibrium molecular dynamics simulation of electromigration in aluminum-based metallic interconnects**
Şen F. G., AYDINOL M. K.
Turkish Journal of Engineering and Environmental Sciences, vol.30, no.6, pp.387-394, 2006 (Scopus)

Refereed Congress / Symposium Publications in Proceedings

- I. **Optimization of Graphene Synthesis by Electrochemical Exfoliation of Graphite**
Kurt V., AYDINOL M. K.
4th International Symposium on Materials for Energy Storage and Conversion, 11 - 13 September 2019
- II. **Novel Zirconium based Active Material Synthesis and Performance as a Li-ion Battery Electrode**
Savaş Uygur C., AYDINOL M. K.
4th International Symposium on Materials for Energy Storage and Conversion, 11 - 13 September 2019
- III. **Effect of Ni-Mn-Co Ratio on Structural and Electrochemical Properties of NMC Cathode Materials**
Pişkin B., SAVAS UYGUR C., AYDINOL M. K.
4th International Symposium on Materials for Energy Storage and Conversion (mESC-IS 2019), 11 - 13 September 2019
- IV. **Ni-Rich LiNi_xMn_yCo_zO₂ (x0.6) Cathode Material Development for Li-Ion Battery via Sol-Gel Method**

- yıldırım m. a., AYDINOL M. K.
4th International Symposium on Materials for Energy Storage and Conversion, 11 - 13 September 2019
- V. **Topological analysis and large-scale computational screening for solid Li-ion superconductor candidates**
ÖVÜN M., AYDINOL M. K.
4th International Symposium on Materials for Energy Storage and Conversion, 11 - 13 September 2019
- VI. **Synthesis and Characterization of Composite Active Cathode Materials for Lithium-Ion Batteries**
erdoğan e. e., AYDINOL M. K.
4th International Symposium on Materials for Energy Storage and Conversion, 11 - 13 September 2019
- VII. **Structural and Electrochemical Performance of Mo-Doped Li(Ni_{0.8-x}Co_{0.15}Al_{0.05})O₂ Cathodes for Li-Ion Batteries**
PİŞKİN B., SAVAS UYGUR C., AYDINOL M. K.
4th International Symposium on Materials for Energy Storage and Conversion (mESC-IS 2019), 11 - 13 September 2019
- VIII. **Development and Characterization of Activated Carbon / Transition Metal Phosphide Composites for Electrochemical Capacitors**
KÖSE K. Ö., AYDINOL M. K.
4th International Symposium on Materials for Energy Storage and Conversion, 11 - 13 September 2019
- IX. **The Improvement in Reversible Capacity by Calcium Doping in Li(Ni_{1/3}Mn_{1/3}Co_{1/3})O₂ Lithium Ion Battery Cathodes**
PİŞKİN B., SAVAS UYGUR C., AYDINOL M. K.
3rd International Symposium on Materials for Energy Storage and Conversion, 10 - 12 September 2018
- X. **Morphology Effect on Electrochemical Properties of NMC-622, NMC-111 and NMC-226 Cathode Materials**
PİŞKİN B., SAVAS UYGUR C., AYDINOL M. K.
3rd International Symposium on Materials for Energy Storage and Conversion, 10 - 12 September 2018
- XI. **Prospects of Large Scale Energy Storage in Turkey- Pumped Hydro and Electrochemical Energy Storage**
ÖZTÜRK T., AYDIN İ., AYDINOL M. K., PATAT \$.
14TH INTERNATIONAL CONFERENCE ON ENERGY STORAGE, 25 - 28 April 2018
- XII. **Doping of layered Li(Ni_xMn_yCo_{1-x-y-z}M_z)O₂ (z=Ag,Cu) cathode materials for lithium ion batteries**
PiŞKİN B., SAVAS UYGUR C., AYDINOL M. K.
2017 MRS Fall Meeting Exhibit, 26 November - 01 December 2017
- XIII. **Ab initio Electronic Structure Calculations of LaBO₃ (B= Cr, Mn and Fe) Perovskites**
AFAL GENİŞ A., AYDINOL M. K.
2nd International Symposium on Materials for Energy Storage and Conversion, 26 - 28 September 2017
- XIV. **Development and Characterization of Tungstates and Molybdates for Li-ion Batteries**
Kaygusuz B., AYDINOL M. K.
2nd International Symposium on Materials for Energy Storage and Conversion, 26 - 28 September 2017
- XV. **Effect of Different Binders on Cyclic Performance of Si/C Anodes for Secondary Lithium-Ion Batteries**
Miser B., Livan P., Altınok S., Eyövge c., ÖZTÜRK T., AYDINOL M. K.
2nd International Symposium on Materials for Energy Storage and Conversion, 26 - 28 September 2017
- XVI. **Electrochemical Properties of Surface Processed Silicon Micro Particles for Secondary Lithium-Ion Battery Anodes**
Miser B., AYDINOL M. K.
2nd International Symposium on Materials for Energy Storage and Conversion, 26 - 28 September 2017
- XVII. **Effect of Physical Activation on the Capacitive Properties of Chemically Activated Carbons**
KÖSE K. Ö., AYDINOL M. K.
2nd International Symposium on Materials for Energy Storage and Conversion, 26 - 28 September 2017
- XVIII. **Carbon Encapsulation and Encapsulated Si Particles for Energy Storage**

- Livan P., Miser B., Eyövge c., AYDINOL M. K., ÖZTÜRK T.
2nd International Symposium on Materials for Energy Storage and Conversion, 26 - 28 September 2017
- XIX. **Optimization of Graphene Synthesis by Electrochemical Exfoliation of Graphite**
Kurt V., AYDINOL M. K.
2nd International Symposium on Materials for Energy Storage and Conversion, 26 - 28 September 2017
- XX. **Production and Characterization of Ag-based Oxide Catalysts for Zinc-Air Batteries**
ARSLAN B., AYDINOL M. K.
2nd International Symposium on Materials for Energy Storage and Conversion, 26 - 28 September 2017
- XXI. **The effect of lithium amount on electrochemical and structural characteristics of $\text{Li}_{x}(\text{Ni0.80Co0.15Al0.05})\text{O}_2$ cathode active materials for lithium-ion batteries**
SAVAS UYGUR C., PİŞKİN B., AYDINOL M. K.
2nd International Symposium on Materials for Energy Storage and Conversion, 26 - 28 September 2017
- XXII. **Doping of layered $\text{Li}(\text{NixMnyCo1?x?y-zMz})\text{O}_2$ ($\text{z}=\text{W}, \text{Mo}$) cathode materials for lithium ion batteries**
PİŞKİN B., SAVAS UYGUR C., AYDINOL M. K.
2nd International Symposium on Materials for Energy Storage and Conversion, 26 - 28 September 2017
- XXIII. **Carbon Encapsulated Silicon Nanoparticles as Anodes for Lithium Ion Batteries**
Livan P., Miser B., Altinok S., Eyovge C., AYDINOL M. K., ÖZTÜRK T.
Symposium on Plasma Nano Science and Technology held during the 231st Meeting of the Electrochemical-Society (ECS), Louisiana, United States Of America, 28 May - 01 June 2017, vol.77, pp.373-382
- XXIV. **Development and Characterization of Catalyst Materials of Zinc Air Batteries**
ARSLAN B., AYDINOL M. K.
Materials Research Society Fall Meeting, Boston, MA, United States Of America, 27 November - 02 December 2016
- XXV. **Productions and Characterization of Layered Cathode Materials for Lithium ion Batteries**
PİŞKİN B., AFAL GENİŞ A., AYDINOL M. K.
Materials Research Society Spring Meeting, Phoenix, AZ, United States Of America, 28 March - 01 April 2016
- XXVI. **Ab initio Molecular Dynamics Characterization of La based Perovskite Type Oxides for Metal Air Cell Cathodes**
AFAL GENİŞ A., AYDINOL M. K.
Materials Research Society Spring Meeting, Phoenix, AZ, United States Of America, 28 March - 01 April 2016
- XXVII. **Production and characterization of silicon particles with nanowired surfaces for secondary Li ion battery anode**
Kayıplar B., AYDINOL M. K.
International Symposium on Materials for Energy Storage and Conversion, 7 - 09 September 2015
- XXVIII. **Development and characterization of new layered cathode materials for Li ion batteries**
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